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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/813,420	03/20/2001	Stephen Allott	1875.8080000	2396
26111 7590 12/12/2007 STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER	
			BHATTACHARYA, SAM	
WASHINGIC	N, DC 20005		ART UNIT PÄPER NUMBER	
			2617	
		•	MAIL DATE	DÉLIVERY MODE
			12/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

•		Application No.	Applicant(s)			
		09/813,420	ALLOTT ET AL.			
	Office Action Summary	Examiner	Art Unit			
		Sam Bhattacharya	2617			
5 : 16	The MAILING DATE of this communication app	pears on the cover sheet with the c	correspondence address			
Period for Reply						
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REPLICHEVER IS LONGER, FROM THE MAILING DINGS of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. Operiod for reply is specified above, the maximum statutory period are to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION (36(a). In no event, however, may a reply be tinwill apply and will expire SIX (6) MONTHS from (6), cause the application to become ABANDONE	N. nely filed the mailing date of this communication. ED (35 U.S.C. § 133).			
Status			·			
1)⊠	Responsive to communication(s) filed on 14 S	eptember 2007.				
2a) <u></u>	This action is <b>FINAL</b> . 2b)⊠ This	s action is non-final.				
3)[	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposit	ion of Claims		•			
<b>4</b> )⊠	Claim(s) 2-10 is/are pending in the application					
-	4a) Of the above claim(s) is/are withdrawn from consideration.					
5)⊠	5)⊠ Claim(s) <u>2-8 and 10</u> is/are allowed.					
6)⊠	Claim(s) 9 is/are rejected.					
•	Claim(s) is/are objected to.					
8)	Claim(s) are subject to restriction and/o	or election requirement.				
Applicati	ion Papers					
9)□	The specification is objected to by the Examine	er.				
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
	Applicant may not request that any objection to the	drawing(s) be held in abeyance. See	e 37 CFR 1.85(a).			
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11)	The oath or declaration is objected to by the Ex	xaminer. Note the attached Office	Action or form PTO-152.			
Priority (	ınder 35 U.S.C. § 119					
12)	Acknowledgment is made of a claim for foreign	priority under 35 U.S.C. § 119(a	)-(d) or (f).			
-	☐ All b)☐ Some * c)☐ None of:					
	<ol> <li>Certified copies of the priority documents have been received.</li> </ol>					
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachmen		_				
	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary Paper No(s)/Mail D				
3) Infon	mation Disclosure Statement(s) (PTO/SB/08) or No(s)/Mail Date	5) Notice of Informal F 6) Other:				

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## **DETAILED ACTION**

# Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claim 9 is rejected under 35 U.S.C. 103(a) as being anticipated by Zarubinsky et al. (U.S. Patent Application Publication 2002/0114413 A1) in view of Hanson (US 5,631,969).

As to claim 9, the Zarubinsky reference discloses a method of setting signal levels of inphase and quadrature phase components of a radio receiver between a minimum threshold voltage and a maximum threshold voltage, the method including setting the gain of an automatic gain control, increasing the gain of the automatic gain control stage by a predetermined amount and repeating these steps until the signal levels of the in-phase and quadrature phase components are greater than or equal to the predetermined minimum threshold value (see page 2, col. 1, paragraphs [0028], [0030], [0031]; and page 5, col. 2, paragraphs [0089] to [0092]).

Zarubinsky fails to disclose setting the gain to a value at which the signal levels of the in phase and quadrature phase components are less than or equal to the maximum threshold voltage, and comparing the signal levels of the in-phase and quadrature phase components to a predetermined minimum threshold value.

However, in an analogous art, Hanson discloses a receiver in which a gain to a value at which the signal levels of the in phase and quadrature phase components are less than or equal to the maximum threshold voltage, and comparing the signal levels of the in-phase and quadrature

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phase components to a predetermined minimum threshold value. See FIG. 2 and claim 25. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method in Zarubinsky by including the above-noted features taught in Hanson for the purpose of fine tuning the levels of the in phase and quadrature phase components to desired values.

# Allowable Subject Matter

- 3. Claims 2-8 and 10 are allowed.
- 4. The following is a statement of reasons for the indication of allowable subject matter: claim 7 is allowed for reasons previously stated; the prior art fails to disclose the recited combinations of elements including a demodulator or delay measurement means that determines a delay vector as in claims 2 and 5, making digital representations of the inphase and quadrature components more positive or negative based on thresholds as in claim 8, and determining signal delay vectors between inputs of low pass filters, as in claim 10.

## Response to Arguments

5. Applicant's arguments with respect to claim 9 have been considered but are moot in view of the new ground(s) of rejection.

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## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Bhattacharya whose telephone number is (571) 272-7917. The examiner can normally be reached on Weekdays, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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